

REGISTER OF HAZARDOUS MATERIALS REPORT SALAMANDER SHORES HOTEL 147 SOLDIERS POINT ROAD SOLDIERS POINT NSW 2317

Prepared for:

SAKE Development Suite 11 340 Darling Street Balmain NSW 2041

Report Date: 2 March 2009

Project Ref: ENVIRHOD00565AA

Fieldwork by:

Written/Submitted by:

Reviewed/Approved by:

Kate Liddell WHS Consultant Emily Curran WHS Consultant Emily Curran WHS Consultant Robert Walker

Senior Project Manager



2 March 2009

SAKE Development Suite 11 340 Darling Street Balmain NSW 2041

Attention: Sarah Kelly

Dear Sarah,

RE: Salamander Shores Hotel, 147 Soldiers Point Road, Soldiers Point NSW 2317

Coffey Environments Pty Ltd is pleased to present its report following a hazardous materials survey of The Salamander Shores Hotel located at 147 Soldiers Point Road, Soldiers Point NSW 2317 hereafter referred to as 'the site'.

Please note that all activities and services provided by Coffey Environments Pty Ltd are subject to the Methodologies and Statement of Limitations contained within this report.

Please do not hesitate to contact the Project Coordinator should you wish to discuss any aspect of the report.

For and on behalf of Coffey Environments Pty Ltd

Robert Walker

Senior Project Manager

RECORD OF DISTRIBUTION

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EXECUTIVE SUMMARY

Coffey Environments Pty Ltd conducted a hazardous materials survey of the Salamander Shores Hotel located at 147 Soldiers Point Road, Soldiers Point NSW 2317 on 2 February 2009. The survey was undertaken to facilitate the identification and location of hazardous materials to enable management of the hazardous materials and the formation of a hazardous materials management plan.

From the site survey and laboratory analysis results a register of hazardous materials (Haz Mat) has been produced in accordance with the requirements of the National Occupational Health and Safety Commission Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC:2018(2005)] and other relevant legislation.

State Legislation and guidance requires that the register be used by property owners, employers, controllers of the premises and other interested parties, such as contractors, as part of an overall hazardous materials management plan designed to control the risks of exposure to hazardous materials.

This contract was completed by Coffey Environments on the basis of a defined program of work and terms and conditions agreed with the Client. We confirm that in preparing this report we have exercised all reasonable skill and care bearing in mind the project objectives, the agreed scope of works and prevailing site conditions.

No high risk (classified as A1 & A2) asbestos containing materials were identified or suspected during the survey. Full details of all hazardous material assessments can be located within the register.

1 INTRODUCTION

Coffey Environments Pty Ltd was commissioned by SAKE Development to conduct a hazardous materials survey ('The Survey') of Salamander Shores Hotel located at 147 Soldiers Point Road, Soldiers Point NSW 2317 on 2 February 2009.

Kate Liddell and Emily Curran of Coffey Environments carried out the inspection and SAKE Development provided information regarding the site and its history. Other information was obtained from vendor manuals, standards, guidelines, regulations and other material available in the public domain.

The assessment was conducted on the basis of the condition of the materials at the time of inspection and the future anticipated activities at the site.

The scope of this investigation did not allow intrusive sampling techniques to be undertaken and therefore this report may only be used as a partial reference document for the purposes of demolition. Additionally the quantities provided in the Register (section 3.1 of this report) in relation the hazardous materials assessed are **estimates only** and therefore shall **not** be used as the basis for calling upon Tenders to cost for removal/remediation of the situation/s.

No inspection can be guaranteed to locate all asbestos/hazardous materials in a specific location and therefore this assessment cannot be regarded as absolute. Future demolition and or renovation to site structures may expose situations, which were concealed or otherwise impractical to access during this assessment.

1.1 Background

The site has not been previously assessed by Coffey Environments.

The purpose of the survey was to comply with current regulations and to identify hazards within the building to enable hazardous materials to be managed.

1.2 Scope

The scope of work required Coffey Environments to:

- Mobilise a technician/consultant to and from the site.
- Liaise with personnel and collect data on the history, use and function of the site.
- Conduct a standard sampling hazardous materials survey of the site, to locate asbestos containing
 materials (ACM's), lead paint systems, ozone depleting substances (ODS's), polychlorinated
 Biphenyls in light capacitors (PCB's) and damaged, high risk synthetic mineral fibre (SMF) in
 accessible areas.
- Collect samples of suspect asbestos and lead paint material (where accessible) and submit samples
 for laboratory analysis. Note: Only 'typical' suspected occurrences are to be collected and sampled
 (e.g. one in every same fire door / gasket will be analysed. ODS's, PCB's and damaged, high risk
 SMF identified on a visual basis only.
- Document the details of materials identified including photographs of any samples taken
- Record, collate and report the findings.
- Deliver reports to the client as per project agreement.

2 METHODOLOGY

Hazardous material surveys are undertaken considering a risk management approach, in accordance with best practice and recent State Government Legislation. An Occupational Health and Safety and Environmental risk assessment was conducted based on the condition of building materials identified during the survey and prioritised through Action Classifications, listed below.

The assessment involved the investigation for the presence of asbestos (AS), synthetic mineral fibre (SMF) (in friable and exposed condition), lead based paint systems (Pb), Polychlorinated Biphenyls (PCB) and Ozone depleting substances (ODS – [CFC, HCFC or HFC]). Information was collected from the owners/occupiers/tenants of the site on relevant issues pertaining to the site. Based on all the available data and the status of the site at the time of inspection, where items suspected of containing hazardous materials were identified, visual and/or analytical characterisation (where required) was performed and reported in this Hazardous Materials Register.

Only 'typical' suspected asbestos material occurrences are inspected and sampled. Sampling is undertaken on a representative basis, for example, the inspection of one fire door of the same type within the same building is undertaken (i.e. not every 'matching' fire door is examined), unless specifically instructed. Furthermore, only one of each type of fluorescent light fitting is inspected and the details of the capacitor identified within is checked against the 1997 ANZECC register for the Identification of PCB-Containing Capacitors. Sample collection was performed in a non-destructive and non-invasive manner.

Standard sampling hazardous material surveys are restricted to areas that are reasonably accessible during the survey, with respect to the following:

- a) without contravention of relevant statutory requirements or codes of practice;
- b) without demolition or damage to finishes and structure; and
- c) excluding plant and equipment that was 'in service' and operational.

Where the Surveyor encounters access restrictions during the survey, these situations are documented and reported.

No assessment can be regarded as absolute. Future demolition or refurbishment of structures may reveal materials concealed during the assessment, therefore not accessible at the time of the Survey.

As detailed above, an assessment of the resultant risks has been prioritised through the use of Action Classifications (Section 4 - Glossary).

2.1 Asbestos Fibre Identification

Samples taken from suspected asbestos containing materials are representative of the material sampled, individually identified, transported, analysed and reported in accordance with the National Occupational Health and Safety Commission (NOHSC) Guidelines, relevant Statutory Regulations, Codes of Practice and Coffey Environments Work Instructions. Laboratories undertaking analysis are appropriately NATA certified for the analysis conducted.

The presence of asbestos in a bulk sample is determined by Polarised Light Microscopy (PLM) with dispersion staining techniques.

3 RESULTS

3.1 Asbestos & Hazardous Materials Register

Assessment Date:	2 February 2009
Address:	147 Soldiers Point Road, Soldiers Point NSW 2317

DESCRIPTION

The Salamander Shores Hotel contains 91 rooms within three adjoining multi storey blocks with ranges of height from 2-5 storeys. The site also includes associated facilities and amenities such as conference areas (Marlin, Bayview and Spinnaker rooms) car parking, swimming pool, bar, restaurants, bottle shop and landscaped gardens.

The building is mainly constructed of brick and concrete with flat corrugated metal roofs.

For the purpose of this survey the area was split into three different sections (refer to appendix D – Plans). Section 1 is on the northern end and contains the reception, bar, restaurant and Spinnakers function room and bar. Section 2 is located with the centre of the site; it is the largest out of the three sections and contains the Bayview function room and bar. Section 3 is on the south end of the property and is home to the Marlin function room.

Refer to Appendix A - Photograph 1

For Action Classification, Material Descriptors and Register Terminology Coding please refer to Section 4-GLOSSARY

This Register is to be read in conjunction with the whole report. Additional information is attached (Appendix B)

Asbestos materials identified are listed in a separate register to the additional hazard groups.

Assessment by:	Kate Liddell and Emily Curran	Date of inspection:	2 February 2009	Register Review & Re-Inspection:	February 2010
Site Contact:	SAKE Development	Site Location:	147 Soldiers Point Road, So	oldiers Point NSW 2317	

REGISTER OF ASBESTOS CONTAINING MATERIALS

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m², m³)	Comments
Section 1 -	- Accomm	odatio	n Rooms														
No Asbest	os Detect	ed (NA	D)														
Refer to AM953	NAD	-	Fibre cement sheeting eaves and facia lining	External: second floor – east face	Ζ	1	1	-	ı	-	1	-	1	0	Nil	50m ²	
AM955	NAD	ı	3	External: second floor – outside room 404	Z	ı	ı	-	ı	-	1	-	ı	0	Nil	5m ²	
Refer to AM955	NAD	-	Fibre cement sheeting cable infill panel on walls	External: second floor walkway	Ν	-	-	-	ı	-	,	-	1	0	Nil	4m ²	
Refer to AM955	NAD	-		External: lower ground – ceiling and walls	N	-	-	-	1	-	,	-	1	0	Nil	50m ²	
Refer to AM955	NAD	-	Fibre cement sheeting cable boxing	External: first floor – walkway	N	-	-	-	1	-	,	-	1	0	Nil	10m ²	
AM957	NAD	-	Fibre cement sheeting partition wall	Internal: ground floor – cleaners store room adjacent lift	Ζ	1	1	-	ı	-	1	-	1	0	Nil	2m²	
Refer to AM958	NAD	-	Fibre cement sheeting boxing and facia lining	External: ground floor – west side of walkway ceiling	N		•	-	1	-	-	-	1	0	Nil	>100m	

00.0.0.0.0.																	
Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m², m³)	Comments
Refer to AM958	NAD	-	Fibre cement sheeting posts and adjoining beams	External: south western face	N	-	-	-	-	-	-	-	-	0	Nil	>100m	
Refer to AM958	NAD	-	Fibre cement sheeting debris	External: below stairs within garden bed	Z	-	-	-	-	-	-	-	-	0	Nil	5m ²	
AM959	NAD	-	Fibre cement sheeting wall cladding	External: garage - room 101	N	-	-	-	-	-	-	-	-	0	Nil	30m ²	
No asbestos	containing	material	s identified in accessible area	as at the time of the inspection													
Section 1 -	- Spinnak	ers Fun	ction Room and Bar														
No Asbest	os Detect	ed (NA	D)														
Refer to AM951	NAD	-	Sprayed ceiling lining	Internal: throughout store rooms	N	-	-	-	-	-	-	-	-	0	Nil	50m ²	

Ν

Ν

No asbestos containing materials identified in accessible areas at the time of the inspection

Fibre cement sheeting

eaves and facia lining
Fibre cement sheeting infill

panel on wall

Section 1 - Bar, Restaurant and Reception areas

Asbestos Containing Materials

NAD

NAD

Refer to

AM953

AM960

		•	9															
-	AM968	СН	2	Asbestos cement sheeting eaves and canopy lining	External: all faces	N	1	1	1	0	1	0	0	1	5	A4	75m ²	

External: east and north face

Internal: behind fire hose reel

50m²

 $2m^2$

Nil

0 Nil

Sample No.	Results	Photo ID	Description	Location :		Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m², m³)	Comments
No Asbest	os Detect	ed (NA	D)														
Refer to AM951	NAD	-	Sprayed coating on ceiling	Internal: first floor beauticians - throughout	N	-	-	-	-	-	-	1	-	0	Nil	40m ²	
Refer to AM959	NAD	-	Fibre cement sheeting wall cladding	External: front garages/ loading dock (former bottle shop)	Ζ	-	-	-	-	-	1	1	-	0	Nil	35m ²	
AM966	NAD	-	Fibre cement sheeting ceiling lining	Internal: public bar and pool table area	Z	-	1	-	ı	-	1	1	-	0	Nil	50m ²	
Refer to AM966	NAD	-	Fibre cement sheeting wall lining eastern partition	Internal: public bar	Ν	-	-	-	-	-	-		-	0	Nil	15m ²	
Refer to AM966	NAD	-	Fibre cement sheeting wall & ceiling lining	Internal: public bar - corridor adjacent cool room	Ν	-	-	-	-	-	-	-	-	0	Nil	20m ²	
Refer to AM966	NAD	-	Fibre cement sheeting ceiling and wall lining	Internal: gaming room - cashier office	N	-	-	-	-	-	-	-	-	0	Nil	8m²	
Refer to AM966	NAD	-	Fibre cement sheeting upper wall lining	External: restaurant - alfresco dining area and surrounding main function room	N	-			-	-	-	-	-	0	Nil	30m ²	
Refer to AM966	NAD	-	Fibre cement sheeting wall lining	External: west facing wall from pool table area	N	-	-	-	-	-	-	-	-	0	Nil	2m ²	
AM967	NAD	-		External: restaurant - alfresco dining area adjacent stairs to pool	N	-	-	-	-	-	-	-	-	0	Nil	3m ²	
AM969	NAD	-	Fibre cement sheeting wall lining	Internal: reception/entrance foyer	N	-	-	-	-	-	-	-	-	0	Nil	10m ²	
Visual observation	NAD	-	Fibre cement sheeting infill panels	Internal: restaurant kitchen - dry store	N	-	-	-	-	-	-	-	-	00	Nil	40m ²	New panelling

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m², m³)	Comments
Section 2 -	- Accomm	nodatio	n Rooms														
No Asbest	os Detect	ed (NA	D)														
AM952	NAD	-	Fibre cement sheeting cable boxing	External: ground floor – walkway ceiling	Ν	-	-	-	-	-	1	-	1	0	Nil	50m ²	
Refer to AM951	NAD	-	Sprayed ceiling lining	Internal: ground floor – all rooms	N	-	-	-	-	-	-	-	1	0	Nil	>100m	
Refer to AM951	NAD	-	Sprayed ceiling lining	Internal: first floor – all rooms	N	-	-	-	-	-	-	-	-	0	Nil	>100m	
Refer to AM953	NAD	-	Fibre cement sheeting awning and facia lining	External: third floor – walkway in front of rooms	N	-	-	-	-	-	-	-	-	0	Nil	100m ²	
Refer to AM953	NAD	-	Fibre cement sheeting eaves and facia lining	External: third floor – east face	N	-	-	-	-	-	-	-	-	0	Nil	50m ²	
AM954	NAD	-	Fibre cement sheeting wall panel	External: third floor – infill panel on wall opposite lift	N	-	-	-	-	-	-	-	-	0	Nil	1m ²	
AM958	NAD	-	Fibre cement sheeting posts and adjoining beams	External: western face	N	-	-	-	-	-	-	-	-	0	Nil	>100m	
No asbestos	containing	material	s identified in accessible area	as at the time of the inspection													
Section 2 -	- Bayview	Functi	on Room and Bar														
No Asbest	os Detect	ed (NA	D)														
Refer to AM953	NAD	-	Fibre cement sheeting eaves and facia lining	External: east and north face	N	-	-	-	-	-	-	-	-	0	Nil	50m ²	
No asbestos	containing	material	s identified in accessible area	as at the time of the inspection													

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m², m³)	Comments
Section 3 -	- Accomm	odatio	n Rooms														
No Asbest	os Detect	ed (NA	D)														
AM951	NAD	-	Sprayed ceiling lining	Internal: first floor – all rooms	N	-	-	-	-	-	-	-	-	0	Nil	>100m	
Refer to AM951	NAD	1	Sprayed ceiling lining	Internal: ground floor – all rooms	N	-	-	-	-	-	-	1	-	0	Nil	>100m	
AM953	NAD	-	Fibre cement sheeting awning and facia lining	External: second floor – all room baloneys	N	-	-	-	-	-	-	-	-	0	Nil	>100m	Each balcony is approximately 6m ²
Refer to AM953	NAD	-	Fibre cement sheeting awning and facia lining	External: second floor – walkway in front of rooms	N	-	-	-	-	-	-	-	-	0	Nil	>100m	
Refer to AM958	NAD	-	Fibre cement sheeting posts and adjoining beams	External: north face	N	-	-	-	-	-	-	-	-	0	Nil	>100m	
No asbestos	containing	material	s identified in accessible area	as at the time of the inspection													
Section 3 -	- Marlin F	unction	Room														
Asbestos	Containin	g Mater	rials														
AM963	CH, AM	3	Formed asbestos cement flue	Internal: boiler cupboard within bathroom	N	2	1	1	1	0	1	0	1	7	АЗ	3m	
AM964	CH, AM	28	Formed asbestos cement caps on flue	Internal: boiler cupboard within bathroom	N	2	1	1	1	0	1	0	1	7	АЗ	2m	
AM965	СН	29	Asbestos cement debris	Internal: boiler cupboard within bathroom	Υ	1	2	3	2	0	2	1	1	12	АЗ	2m ²	Remove

Sample No.	Results	Photo ID	Description	Location	Friable	Asbestos Type	Product Type	Extent of Damage	Surface Treatment	Occupant Activity	Likelihood of Disturbance	Exposure Potential	Maintenance Activity	Risk Score	Action	Quantity (m, m², m³)	Comments
No Asbeste	os Detect	ed (NAI	D)														
Refer to AM955	NAD	-	Fibre cement sheeting boxing on ceiling	External: above entrance	N	-	-	-	-	-	-	-	-	0	Nil	5m ²	
Refer to AM962	NAD	-	Fibre cement sheeting wall lining	Internal: kitchen riser boxing	N	-	-	-	-	-	-	-	-	0	Nil	4m ²	
Maintenan	ce Block																
No Asbest	os Detect	ed (NAI	D)														
Refer to AM959	NAD	-	Fibre cement sheeting wall cladding	External: wall cladding	N	-	-	-	-	-	1		1	0	Nil	100m ²	
AM961	NAD	-	Fibre cement sheeting wall lining	Internal: all walls throughout	N	-	-	-	-	-	-	-	1	0	Nil	100m ²	
Refer to AM961	NAD	-	Fibre cement sheeting redundant panels	Internal: wood store	N	-	-	-	-	-	-	-	-	0	Nil	2m ²	
Refer to AM959	NAD	-	Fibre cement sheeting wall cladding	Internal: surrounding laundry	N	-	-	-	-	-	-	-	-	0	Nil	30m ²	
AM962	NAD	-	Fibre cement sheeting cupboard lining	External: chemical store rear of laundry	N	-	-	-	-	-	-	-	-	0	Nil	2m ²	
Refer to AM961	NAD	-	Fibre cement sheeting wall cladding	External: store rooms below main workshop area	N	-	-	-	-	-	-	-	-	0	Nil	100m ²	
Refer to AM962	NAD	-	Fibre cement sheeting window awning	External: west facing windows	N	-	-	-	-	-	-	-	-	0	Nil	2m ²	
No asbestos	containing	lo asbestos containing materials identified in accessible areas at the time of the inspection															

Assessment by:	Kate Liddell and Emily Curran	Date of inspection:	2 February 2009	Register Review & Re-Inspection:	2010
Site Contact:	United Group Services	Site Location:	147 Soldiers Point Road, So	oldiers Point NSW 2317	

REGISTER OF HAZARDOUS MATERIALS

Haz	Sample No.	Results	Photo ID	Description	Location	Friable	Extent of Damage	Surface Treatment	Occupant Activity	Risk Score	Action	Quantity (m, m², m³)	Comments
Accon	Accommodation Rooms												
Pb	AM950	0.0035%	-	White paint on ceiling and walls	Internal: section 3 - second floor linen store adjacent room 514	NA	-	1	-	0	Nil	30m ²	
Pb	AM956	0.076%	-	Blue/ green paint on multiple layers	External: doors, posts and fascias to all rooms	NA	-	-	-	0	Nil	>100 m ²	
ODS	Visual observation	Suspect HCFC	-	Refrigerant gas within air conditioning units	Throughout site	N/A	G	Υ	L	L	A4	100+	

Various brands of air conditioning units were noted throughout the site, checking of all units was not possible due to the location of the units on the external eastern face of the building. It has been assumed that all the air conditioning units contain HCFC.

No high risk SMF or PCB hazards were detected in accessible areas at time of survey.

3.2 No Access Areas

The following areas were not accessible on the day of the inspection:

- Room 308,
- Room 311,
- Room 313,
- Room 328,
- Room 329,
- Room 413,
- Room 414,
- Room 504,
- Room 513,
- Room 514,
- Section 3 2nd floor electrical cabinet,
- Section 2 3rd floor store room adjacent lift,
- Section 1 Distribution board 6,
- Bar cupboard within ladies toilet; and
- Roof.

3.3 Limited Access Areas

· Ceiling Space within restaurant and bar.

4 GLOSSARY

4.1 Asbestos Risk Assessment

Coffey Environments adopt the following material and location assessment algorithms in order to assess the risks associated with individual **asbestos containing materials** located;

Friable

Variable	Score	Description
Friable Y		Asbestos cement debris, or material which when dry may become crumbled, pulverised or reduced to powder by hand pressure.
N		Bonded i.e. non-friable material

Materials Assessment

Variables	Scores	Examples of Score Descriptions
Asbestos Type	0	No asbestos
	1	Chrysotile only
	2	Amphibole asbestos (excluding crocidolite)
	3	Crocidolite
Product Type	0	No asbestos detected
	1	Bonded asbestos in good condition
	2	Friable asbestos in good condition or cement in poor condition
	3	Friable asbestos in poor condition
Extent of Damage	0	No visible damage
	1	Minor scratches or mark, broken edges
	2	Significant breakage, many small areas of damage to friable material
	3	High damage, visible debris
Surface Treatment 0		Bonded Asbestos including encapsulated asbestos cement
	1	Enclosed laggings, sprays and boards or bare cement
	2	Bare board or encapsulated lagging/spray or cement debris
	3	Unsealed lagging/spray

Location Assessment

Variables	Scores	Examples of Score Descriptions
Occupant Activity	0	Rare disturbance, e.g. little used store room
	1	Low disturbance, e.g. Office type activity
	2	Periodic disturbance, e.g. industrial or vehicular activity which may contact ACMs
	3	High levels of disturbance e.g. fire door with AIB sheet in constant use
Likelihood of	0	Usually inaccessible or unlikely to be disturbed
Disturbance	1	Minimal likelihood for disturbance
	2	Likely disturbance
	3	Frequent disturbance
Human Exposure	0	Infrequent
Potential	1	Monthly
	2	Weekly
	3	Daily
Maintenance	0	Minor disturbance (e.g. possibility of contact when gaining access)
Activity	1	Low Disturbance (e.g. changing light bulbs in AIB ceiling).
	2	Medium disturbance (e.g. lifting one or two ceiling tiles to access a valve)
	3	High level of disturbance (e.g. moving a number of AIB ceiling tiles to replace a valve or for re-cabling)

Risk Score

The **asbestos containing material** risk score is a quantitative assessment determined by the sum of the scores based on the Materials and Location Assessments; i.e. Risk score = Material Score + Location Score (out of as possible 24).

Should no asbestos be detected then the register will indicate a risk score of 0.

Variable	Scores	Examples of Score Descriptions
Risk Score	0 - 6	Very Low Risk - Action Score A4
	7 - 12	Low Risk – Action Score A3
13 - 18 Medi		Medium Risk – Action Score A2
	19 - 24	High Risk – Action Score A1

4.2 Hazardous Materials Risk Assessment

Coffey Environments adopt the following material and location assessment algorithms in order to assess the risks associated with individual **hazardous materials other than asbestos** located;

Friable

Variable	Score	Description
Friable Y		Unsealed SMF
	N	Sealed SMF
	NA	Applicable to ODS, PCB, Lead in paint

Material Assessment

Variable	Score	Examples of Score Descriptions
Extent of Damage	G	Good condition
	Av	Average condition
	Р	Poor condition
Surface Treatment	Υ	Sealed
	Р	Part sealed
	N	Not sealed

Location Assessment

Variable Score		Examples of Score Descriptions
Occupant Activity	н	High traffic area
M		Medium traffic area
	L	Low traffic area

Risk Score

The hazardous materials other than asbestos risk score is a qualitative assessment determined by the combination of Material and Location Assessments. Depending on the material one or all of these criteria may be used in assessing the recommended Action.

Variable Score		Examples of Score Descriptions
Risk Score	L	Low exposure risk
M		Medium exposure risk
Н		High exposure risk

4.3 Asbestos and Hazardous Materials Actions

Following the assessment for both asbestos containing and hazardous materials an action score is assigned. For asbestos containing materials this will be assigned according to the risk score associated with the material. For all other hazardous materials the risk score will be assigned according to the surveyor's assessment of the situation.

Action

		Restrict access and remove
		As a guide, the material conforms to one, or more, of the following:
		Friable or poorly bonded to substrate, located in accessible areas
A1	Action 1	Severely water damaged, or unstable
		Further damage or deterioration likely
		Friable asbestos material located in air conditioning ducting
		Asbestos debris and stored asbestos in reasonably accessible areas
		Enclose, encapsulate or seal – Reinspect Periodically
		As a guide, the material conforms to one, or more, of the following:
		Damaged material
A2	Action 2	In reasonably accessible area
		Friable material or poorly bonded to substrate, with bonding achievable
		Possibility of disturbance through contact
		Possibility of deterioration caused by weathering
		Remove during refurbishment or maintenance – Reinspect Periodically
		As a guide, the material conforms to one, or more, of the following:
A3	Action 3	Asbestos debris or stored material in rarely accessed areas
73	/totion o	Further disturbance or damage unlikely other than during maintenance or service
		Readily visible for further assessment
		Asbestos friction materials, gaskets and brake linings
		No remedial action – Reinspect Periodically
		As a guide, the material conforms to one, or more, of the following:
A4	Action 4	Firmly bonded to substrate and readily visible for inspection
		Inaccessible and fully contained
		Stable and damage unlikely

Acronyms

NOHSC	National Occupational Health and Safety Commission					
NATA	National Association of Testing Authorities, Australia					
A/C	Air Conditioning					
F/C	Fibre Cement					
PLM	Polarised Light Microscopy					
SEM	Scanning Electron Microscopy					
EDAX	Energy Dispersive X-ray Analysis					
ACM	Asbestos containing material					
СН	Chrysotile Asbestos					
CR	Crocidolite Asbestos					
AM	Amosite Asbestos					
NAD	No Asbestos Detected					

5 RECOMMENDATIONS

5.1 Asbestos Materials Identified

The recommendations, conclusions or stability of asbestos materials contained in this report shall not abrogate a person of their responsibility to work in accordance with Statutory Requirements, Codes of Practice, Guidelines, Material Safety Data Sheets, Work Instructions or reasonable work practices.

5.1.1 Friable & Bonded Asbestos

Asbestos containing materials (ACM) are referred to as either friable or bonded. Friable asbestos is in the form of a powder, or can be crumbled, pulverized or reduced to powder by hand pressure when dry. *Friable asbestos* includes materials such as sprayed and thermal insulation, pipe lagging and millboard, and can release fibres with only minimal disturbance.

Bonded asbestos products are ones in which the asbestos fibres are bound within the matrix of the material. Bonded asbestos is difficult to damage or cause the release of fibres by hand and includes materials such as asbestos cement sheeting (fibre cement or fibro), vinyl floor tiles and zelemite electrical switchboards. However, bonded asbestos containing materials that have been subjected to weathering, physical damage, water damage, fire or other conditions may contain exposed fibres which could be released upon disturbance.

5.1.2 Control Measures

Asbestos

Friable ACM exhibits the greatest risk to human health as fibres are released upon minimal disturbance. As such removal and replacement would be the preferred option if such materials were found in accessible areas or air conditioning systems.

Alternatively removal and replacement may not be the preferred option for bonded ACM in a good and stable condition as the risk associated with removal could be high (as in the case of only partial demolition of structures on site).

The selection of the most appropriate control measure should be determined from risk assessments and detailed knowledge of the workplace and activities. The following general principles may be applied:

If the ACM is friable, in a poor/unstable condition and accessible with risk to health from exposure, immediate access restrictions should be applied and removal is required as soon as practicable using a licensed removalist.

If the ACM is friable and accessible but in a stable condition, removal is preferred. However, if removal is not immediately practicable, short-term control measures (i.e. restrict access, sealing, enclosure etc) may be employed until removal can be facilitated.

If the ACM is bonded and in a poor/unstable condition; minimising disturbance and removal or encapsulation may be appropriate controls.

For bonded ACM's in a good and stable condition, ongoing maintenance and periodic inspection would be appropriate controls.

Any remaining identified ACM's or presumptions should be appropriately labelled, where possible, and regularly inspected to ensure they are not deteriorating resulting in a potential risk to health.

Prior to any demolition, partial demolition, renovation or refurbishment, asbestos containing materials likely to be disturbed by those works should be removed in accordance with the NOHSC Code of Practice for the Safe Removal of Asbestos 2nd Edition [NOHSC:2002 (2005)].

Further assessment of risk through airborne fibre monitoring can assist with decisions on the most appropriate, and urgency of, control measures.

Other control measures such as training and communication strategies, control of contractors and administrative procedures must be considered as part of the overall Asbestos Management Plan.

Synthetic Mineral Fibre

Un-bonded or bonded SMF that has severely deteriorated has the potential of becoming airborne. Health effects that may occur with exposure to certain SMF materials include; irritation of the skin, eyes and upper respiratory tract. As such removal and replacement would be the preferred option if such materials were found in accessible areas or air conditioning systems.

The selection of the most appropriate control measure should be determined from risk assessments and detailed knowledge of the workplace and activities. The following general principles may be applied:

If the SMF is un-bonded or deteriorated, in a poor/unstable condition and accessible with risk to health from exposure, immediate access restrictions should be applied and removal is required as soon as practicable.

If the SMF is un-bonded or deteriorated, in a poor/unstable condition but in inaccessible areas (i.e. Ceiling space), removal is preferred. However, if removal is not immediately practicable, short-term control measures (i.e. restrict access, or provide personal protective equipment to personnel required to access the area etc) may be employed until removal can be facilitated.

If the SMF is bonded and in a poor/unstable condition; minimising disturbance and removal or encapsulation may be appropriate controls.

For bonded SMF in a good and stable condition, ongoing maintenance and periodic inspection to ensure they are not deteriorating would be appropriate controls.

Prior to any demolition, partial demolition, renovation or refurbishment, synthetic mineral fibre materials likely to be disturbed by those works should be removed in accordance with the NOHSC Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC:2006 (1990)].

Further assessment of risk through airborne fibre monitoring can assist with decisions on the most appropriate, and urgency of, control measures.

Ozone Depleting Substances (Refrigerants)

CFCs and HCFCs -Air-conditioning systems were identified as containing refrigerants.

When CFC or HCFC refrigerants are in use, the following points should be considered:

- 1. What type of refrigerants are being used,
- The loss rate of refrigerant,

3. What is the remaining economic life of the equipment?

Control strategies for CFC and HCFC refrigerants include:

CFC and HCFC based equipment should be made leak free (note that domestic refrigerators are leak free) where feasible;

CFC and HCFC based equipment should be converted/retrofitted or replaced with equipment using ozone benign refrigerants where feasible; and

A licensed contractor who will recycle and reuse the refrigerant should decommission CFC and HCFC based equipment that is being disposed of.

Lead Paint

The selection of the most appropriate control measure should be determined from risk assessments and detailed knowledge of the workplace and activities. The following general principles may be applied:

Regardless of condition, immediate access restrictions should be applied and removal undertaken if the lead-based paint is located in areas that are likely to be chewed or licked by children, knocked or are subject to friction.

If the lead-based paint is flaking or chalking, or in a poor/unstable condition (and not located in areas as described above), repainting is required as soon as practicable. However, the surface will need to be prepared by a light wet sanding with wet-and-dry sandpaper to help the paint stick to the surface. Take care not to generate lead dust or contaminate the areas with water from the wet-sanding process.

Lead-based paint in good condition (and not located in areas as described above), should be left in place, unless major renovation and comprehensive removal is planned.

Painting over lead-based paint is a temporary solution limited by the life of the paint. Alternatives to painting or the removal of lead-based paint include encapsulating the paint with other materials.

Lead Dust

The selection of the most appropriate control measure should be determined from risk assessments and detailed knowledge of the workplace and activities. The levels of lead in dust detected may be compared with the following indicative levels when undertaking the risk assessment:

Indicative Levels

According to the United States Department of Housing and Urban Development (US HUD) Guidelines, the permissible amount of leaded dust remaining on each of the following surfaces following lead hazard work is:

- 1 mg/m2 on floors (carpeted or uncarpeted)
- 5 mg/m2 on interior window sills (or stools).
- 8 mg/m2 on window troughs (the area where the sash sits when closed).
- 8 mg/m2 on exterior concrete (1 mg = 1000 μg).

Other control measures such as training and communication strategies, control of contractors and administrative procedures must be considered as part of the overall Asbestos Management Plan.

6 STATEMENT OF LIMITATIONS

Coffey Environments has conducted work concerning the environmental status of the property which is the subject of this report, and has prepared this report on the basis of that assessment.

The work was conducted, and the report has been prepared, in response to specific instructions from the client to whom this report is addressed, within the time and budgetary requirements of the client, and in reliance on certain data and information made available to Coffey Environments. The analyses, evaluations, opinions and conclusions presented in this report are based on those instructions, requirements, data or information, and they could change if such instructions etc. are in fact inaccurate or incomplete.

Investigations have been based on inspections conducted in accordance with relevant guidelines and standards, and normal industry practice, having regard to the client instructions, and interpretations of conditions are based on the data from those inspections and, where relevant and conducted, testing. To the best of our knowledge, they represent a reasonable interpretation of the condition of the site as able to be inspected. However there can be no guarantee that conditions at specific points not able to be inspected do not vary from the interpreted conditions based on the available observations/data.

In order to determine actual environmental conditions at specific intermediate points away from those observed/tested to date, those specific points would need to be inspected/tested.

It is also noted that sub-surface conditions can change with time, and the report is based on data that was gathered at the time of the report. Coffey Environments will not update the report and has not taken into account events occurring after the time its assessment was conducted.

This inspection and report may not include the following areas:

- · Beneath building;
- · Roof of building; and
- Removal of fittings e.g. kitchen or bathroom cupboards.

Internal building materials should be assumed to contain asbestos and lead-based paint, and any fluorescent lights inside the buildings should be assumed to contain PCB capacitors until otherwise assessed.

Subsurface drains and pipes may be constructed of asbestos cement but this could not be assessed. Any subsurface pipes, particularly those constructed of fibro-cement or concrete, should be assumed to contain asbestos until otherwise assessed.

This report has been provided by Coffey Environments for the sole use of the client and only for the purpose for which it was prepared. Any representation contained in the report is made only for the client.

Standard Asbestos Sampling Survey

Assessments that are effectively Compliance Surveys are non-destructive and as such are not intended for use or referral for the purpose of demolition, refurbishment, renovations or structural alterations. In the event of future demolition, refurbishment, renovation or structural alterations further investigation, which may entail destructive testing, shall be required.

No inspection can be guaranteed to locate all asbestos in a specific location. The assessment cannot be regarded as absolute, without extensive invasion of structures. Future demolition and or renovation to site structures may expose situations, which were concealed or otherwise impractical to access during this assessment.

Coffey Environments assessors take samples at any situations known, or suspected, to contain Asbestos. Where the analysis determines that No Asbestos is Detected (NAD) the samples are listed in the report to provide information for future assessments.

Representative sampling is defined as one like sample per consistent material type, situation or item. In these instances only one test sample will be collected for analytical confirmation and the results expressed as consistent and typical of the building.

Due to the very low concentration of asbestos fibres and the non-homogenous matrix of vinyl floor tiles, false negative results may be obtained. Therefore the accuracy of all results cannot be guaranteed.

Notably, with some asbestos containing bulk material it can be very difficult, or impossible to detect the presence of asbestos using the polarised light microscopy analytical method, even after ashing or disintegration of samples. This is due to the low grade or small length or diameter of asbestos fibres present in the material, or attributed to the fact that, very fine fibres have been distributed individually throughout the materials.

The analysis of many asbestos products used as a component of insulation materials, may be compromised in instances where the material has been heat affected, as heat may alter the morphology of the fibrous material.

The Client must not rely on an inspection or report as indicating that a site or a building is "asbestos free". All that the report can be relied upon to show is that no asbestos was found (or that only such asbestos was found as was reported to be found) in the course of the inspection. The findings of the report must be considered together with the specific scope and limitations of the type of inspection undertaken.

COFFEY ENVIRONMENTS PTY LTD

7 BIBLIOGRAPHY

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New South Wales Legislation

Occupational Health and Safety Act, 2000

Occupational Health and Safety Regulation, 2001

Occupational Health and Safety (Asbestos Removal Work) Regulation, 1995

Working with asbestos-cement (fibro) products, WorkCover of New South Wales.

Appendix A Photographs

Photograph 1: Salamander Shores Hotel, 147 Soldiers Point Road, Soldiers Point NSW 2317.



Photograph 2: Asbestos cement sheeting eaves and canopy lining - External: all faces.



Photograph 4: Formed asbestos cement caps on flue - Internal: boiler cupboard within bathroom.



Photograph 3: Formed asbestos cement flue - Internal: boiler cupboard within bathroom.



Photograph 5: Asbestos cement debris - Internal: boiler cupboard within bathroom.



Appendix B Legislative Requirements

STATE Primary Asbestos Legislation	Asbestos Survey Requirements	Asbestos Resurvey Requirements	Reporting Requirements	Labelling/Signage Requirements	Other Requirements
COMMONWEALTH Occupational Health and Safety (Commonwealth Employment) Act 1991 Occupational health and Safety (Safety Standards) Regulations 1994 Occupational Health and Safety Act 2000	All asbestos surveys are to be conducted in accordance Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC:2018(2005)] and in accordance with the relevant State or Territory Legislation.	Re-inspections are required at a maximum of 1 year depending on risk. All asbestos re-surveys are to be conducted in accordance Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC:2018(2005)].	Asbestos register to contain details of the type, location and condition asbestos materials plus any action taken to control ACM plus relevant details. All reporting requirements are to be conducted in accordance Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC:2018(2005)].	All identified asbestos in a building or other structure should be labelled so that it is clearly visible to persons using the area, until it is finally removed. All labelling/signage requirements are to be conducted in accordance Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC:2018(2005)].	

STATE Primary Asbestos Legislation	Asbestos Survey Requirements	Asbestos Resurvey Requirements	Reporting Requirements	Labelling/Signage Requirements	Other Requirements
NEW SOUTH WALES Occupational Health and Safety Act 2000 Occupational Health and safety Regulation 2001	Controller of work premises responsibility An asbestos register for any place of work is to be recorded, prepared and maintained.	Not specified in OHS Regulation. Under National Asbestos Code of Practice [NOHSC: 2002 (1988)] the register shall be regularly updated. Re- inspections between 1 and 3 years depending on risk.	Asbestos register to contain details of the type, location and condition asbestos materials plus any action taken to control ACM plus relevant details.	Not specified in OHS Regulation. Under National Asbestos Code of Practice [NOHSC: 2002 (1988)]. All identified asbestos in a building or other structure should be labelled so that it is clearly visible to persons using the area, until it is finally removed.	Regulation states that controller of premises must ensure that risk assessment and controls to be in accordance with NOHSC:2002(1988). Current policy reflects observance of the most recent publication in relation to working with asbestos i.e. (NOHSC:2018(2005)]

STATE Primary Asbestos Legislation	Asbestos Survey Requirements	Asbestos Resurvey Requirements	Reporting Requirements	Labelling/Signage Requirements	Other Requirements
VICTORIA Occupational Health & Safety Act 2004 Occupational Health and Safety (Asbestos) Regulations 2003	Occupier's responsibility to determine whether asbestos is present and if so identify the type, location, friability and condition of ACM. Also to conduct risk assessment on the basis of the above plus likely disturbances.	Undertake review and revision of risk assessment when condition of asbestos changes, remedial work has been carried out or the assessment is no longer valid. Maximum review timeframe is 5 years.	Reports must include the type, location, friability & condition of asbestos, Identification of inaccessible areas and risk assessment including dates.	The regulations require that the presence and location of asbestos is clearly identified, and that where practicable, the identification is by labelling.	
TASMANIA Workplace Health & Safety Act 1995. Workplace Health and Safety Regulations 1998	Reasonable steps to be taken to identify the presence of any asbestos. Then carry out a risk assessment on potential exposure to airborne asbestos fibres.	Regularly inspect any asbestos identified to ensure that it does not deteriorate or constitute a health risk, and record the date and findings of each inspection in the register.	Maintain a register in relation to asbestos identified and findings of each inspection in the register and make the register available.	In any area building, structure or mine containing asbestos & regular maintenance or repair work is likely; provide and fix signs or labels to alert those persons of the location of the asbestos and any precautions that should be taken.	

STATE Primary Asbestos Legislation	Asbestos Survey Requirements	Asbestos Resurvey Requirements	Reporting Requirements	Labelling/Signage Requirements	Other Requirements
AUSTRALIAN CAPITAL TERRITORY Building Act 2004; Construction Occupations (Licensing) Act 2004; Part 3.4 of the Dangerous Substances (General) Regulations 2004; Dangerous Substances (General) Regulations 2004; Environment Protection Act 1997; and Occupational Health and Safety Act 1989	Part 3.4 of the Dangerous Substances (General) Regulations 2004. A person in control of non-residential premises must have an asbestos management plan for the premises.	Part 3.4 of the Dangerous Substances (General) Regulations 2004. A review of asbestos management plan no longer than 5 years after the day it was made.	Part 3.4 of the Dangerous Substances (General) Regulations 2004. Maintain a register on the premises which includes date of assessment, location & types of asbestos, analysis, risk assessments, control measures, and details of competent person who undertook the assessment. Details of presumptions made and likely asbestos in inaccessible areas to be included.	Part 3.4 of the Dangerous Substances (General) Regulations 2004. Warning signs & labels to be used in conjunction with the workplace register to warn people of the presence of ACM. Competent person to determine number and position of labels. Areas containing ACM to be signposted.	

LEGISLATIVE REQUIREMENTS — ASBESTOS

This document has been produced for information only and is under regular review due to frequent changes in legislation and guidance. It contains information relating to the column headings only and not, for instance, in relation to asbestos removal. It is the duty of employers, premise owners and controllers of premises etc to ensure they are familiar with the latest applicable state legislation and guidance.

STATE Primary Asbestos Legislation	Asbestos Survey Requirements	Asbestos Resurvey Requirements	Reporting Requirements	Labelling/Signage Requirements	Other Requirements
QUEENSLAND Workplace Health & Safety Act 1995 Workplace Health & Safety Regs 1997 From 01.01.2008 or immediately if not previously compliant	Building Owner Responsibility. All workplaces built before 1990 require register of 'Asbestos Materials' before 31 Oct 2004 or before being dismantled, demolished, sold or leased.	Annual Reinspection for Asbestos Materials * Or earlier if the nature or location of the works in the vicinity of the asbestos materials changes.	Report must state the location, type and form of asbestos materials. Also whether the asbestos material is friable or poorly bonded or in an unstable condition. Plus any potential health risks to occupants of the building because of the presence of asbestos materials.	All buildings with asbestos materials must have a notice in a prominent place in the building stating there is an asbestos register and where it can be viewed.	* Asbestos Materials defined as installed thermal or acoustic insulation containing asbestos, in the '97 Regs.
	Must comply with the Asbestos Management Code [NOHSC:2018 (2005)] by 1st Jan 2008 (immediately of not compliant with repealed division of Regs) or prior to being altered, dismantled, demolished, sold or leased.	Annual review of register & Management plan after 01.01.08 A visual inspection of ACM should be undertaken as part of any review.	Maintain a register on the premises which includes date of assessment, location & types of asbestos, analysis, risk assessments, control measures, and details of competent person who undertook the assessment. Details of presumptions made and likely asbestos in inaccessible areas to be included.	Warning signs & labels to be used in conjunction with the workplace register to warn people of the presence of ACM. Competent person to determine number and position of labels. Areas containing ACM to be signposted.	Develop & implement an asbestos management plan.

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STATE Primary Asbestos Legislation	Asbestos Survey Requirements	Asbestos Resurvey Requirements	Reporting Requirements	Labelling/Signage Requirements	Other Requirements
WESTERN AUSTRALIA WA Occupational Safety and Health Act 1984 WA occupational Health and Safety Regulations 1996	Employer, main contractor, self-employed person or person having control of the workplace to ensure that presence and location of asbestos at the workplace is identified. The process of identification and assessment of risks arising from asbestos hazards are to be conducted in accordance with the Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018 (2005)].	Annual review of register and management plan under NOHSC: 2018(2005). A visual inspection of ACM should be undertaken as part of any review.	Under NOHSC:2018(2005): Maintain a register on the premises which includes date of assessment, location & types of asbestos, analysis, risk assessments, control measures, and details of competent person who undertook the assessment. Details of presumptions made and likely asbestos in inaccessible areas to be included.	Under NOHSC:2018(2005): Warning signs & labels to be used in conjunction with the workplace register to warn people of the presence of ACM. Competent person to determine number and position of labels. Areas containing ACM to be signposted.	Health (Asbestos) Regulations 1992

LEGISLATIVE REQUIREMENTS — ASBESTOS

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STATE Primary Asbestos Legislation	Asbestos Survey Requirements	Asbestos Resurvey Requirements	Reporting Requirements	Labelling/Signage Requirements	Other Requirements
NORTHERN TERRITORY Work Health Act & Regulations (Adopted NOHSC Codes of Practice)	Employer, main contractor, self-employed person or person having control of the workplace to ensure that presence and location of asbestos at the workplace is identified. The process of identification and assessment of risks arising from asbestos hazards are to be conducted in accordance with the Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018 (2005)].	Annual review of register and management plan under NOHSC: 2018(2005). A visual inspection of ACM should be undertaken as part of any review.	Under NOHSC:2018(2005): Maintain a register on the premises which includes date of assessment, location & types of asbestos, analysis, risk assessments, control measures, and details of competent person who undertook the assessment. Details of presumptions made and likely asbestos in inaccessible areas to be included.	Under NOHSC:2018(2005): Warning signs & labels to be used in conjunction with the workplace register to warn people of the presence of ACM. Competent person to determine number and position of labels. Areas containing ACM to be signposted.	NOHSC:2018(2005) adopted by NT as an Approved Code of Practice (also NOHSC 2002 and 3003)

Appendix C Certificate(s) of Analysis

Hazardous Materials Report Salamander Shores Hotel Soldiers Point NSW



ANALYTICAL REPORT

11 February 2009

Coffey Environments Pty Ltd

Level 1, 3 Rider Boulevard RHODES NSW 2138

Attention: Robert Walker

Your Reference: ENVIRHOD00565AA

Our Reference: 67171 Samples: 18 Materials, 2 Paint

Received: 04/02/09

Preliminary Report Sent:

These samples were analysed in accordance with your written instructions.

For and on Behalf of:

SGS ENVIRONMENTAL SERVICES

Client Services: Simon Matthews Simon.Matthews@sgs.com

Sample Receipt: Angela Mamalicos AU.SampleReceipt.Sydney@sgs.com

Laboratory Manager: Edward Ibrahim Edward.Ibrahim@sgs.com
Business Manager: Con Benikos Con.Benikos@sgs.com

Results Approved and/or Authorised by:

Ravee Sivasubramaniam

Asbestos Signatory

Huong Crawford Metals Signatory

Page 1 of 7



Lead in Paint			
Our Reference:	UNITS	67171-1	67171-7
Your Reference		AM950	AM956
Sample Matrix		Paint	Paint
Date Extracted		6/02/2009	6/02/2009
Date Analysed		6/02/2009	6/02/2009
Lead in paint	%	0.0035	0.076

Asbestos ID in materials						
Our Reference:	UNITS	67171-2	67171-3	67171-4	67171-5	67171-6
Your Reference		AM951	AM952	AM953	AM954	AM955
Sample Matrix		Material	Material	Material	Material	Material
Date Analysed		11/02/2009	11/02/2009	11/02/2009	11/02/2009	11/02/200
Sample Description		<1g	<1g	<1g	<1g	30x25x4n
		vermiculite	fibreboard	fibreboard	fibreboard	m plater
		material	fragments	fragments	fragments	fragment
Asbestos ID in materials	-	No	No	No	No	No
		asbestos	asbestos	asbestos	asbestos	asbestos
		detected	detected	detected	detected	detected
				Organic	Organic	
				fibres	fibres	
				detected*	detected*	
Asbestos ID in materials						
Our Reference:	UNITS	67171-8	67171-9	67171-10	67171-11	67171-1
Your Reference		AM957	AM958	AM959	AM960	AM961
Sample Matrix		Material	Material	Material	Material	Material
·						
Date Analysed		11/02/2009	11/02/2009	11/02/2009	11/02/2009	11/02/200
Sample Description		<1g	30x15x3m	35x20x3m	<1g	<1g
		fibreboard	m plaster	m	fibreboard	fibreboar
		fragments	board	fibreboard	fragments	fragmen
			fragments	fragments		
Asbestos ID in materials	-	No	No	No	No	No
		asbestos	asbestos	asbestos	asbestos	asbesto
		detected	detected	detected	detected	detected
		Organic		Organic	Organic	Organic
		fibres		fibres	fibres	fibres
		detected*		detected*	detected*	detected
Asbestos ID in materials						
Our Reference:	UNITS	67171-13	67171-14	67171-15	67171-16	67171-1
Your Reference		AM962	AM963	AM964	AM965	AM966
Sample Matrix		Material	Material	Material	Material	Material
- Campio mann					a.oriai	
Data Analyses d		11/00/0000	11/00/0000	11/00/0000	11/02/2022	11/00/00
Date Analysed		11/02/2009	11/02/2009	11/02/2009	11/02/2009	
Date Analysed Sample Description		<1g	<1g cement	<1g cement	<1g cement	<1g
		<1g fibreboard	<1g cement sheet	<1g cement sheet	<1g cement sheet	<1g fibreboar
Sample Description		<1g fibreboard fragments	<1g cement sheet fragments	<1g cement sheet fragments	<1g cement sheet fragments	<1g fibreboar fragment
<u>*</u>	-	<1g fibreboard fragments	<1g cement sheet fragments Chrysotile	<1g cement sheet fragments Chrysotile	<1g cement sheet fragments Chrysotile	<1g fibreboar fragment
Sample Description	-	<1g fibreboard fragments No asbestos	<1g cement sheet fragments Chrysotile asbestos	<1g cement sheet fragments Chrysotile asbestos	<1g cement sheet fragments Chrysotile asbestos	<1g fibreboar fragment No asbestos
Sample Description	-	<1g fibreboard fragments No asbestos detected	<1g cement sheet fragments Chrysotile asbestos detected	<1g cement sheet fragments Chrysotile asbestos detected	<1g cement sheet fragments Chrysotile	<1g fibreboar fragment No asbestos detected
Sample Description	-	<1g fibreboard fragments No asbestos	<1g cement sheet fragments Chrysotile asbestos	<1g cement sheet fragments Chrysotile asbestos	<1g cement sheet fragments Chrysotile asbestos	fibreboard fragment



Asbestos ID in materials Our Reference: Your Reference Sample Matrix	UNITS	67171-18 AM967 Material	67171-19 AM968 Material	67171-20 AM969 Material
Date Analysed		11/02/2009	11/02/2009	11/02/2009
Sample Description		<1g fibreboard fragments	<1g fibreboard fragments	<1g fibreboard fragments
Asbestos ID in materials	-	No asbestos detected Organic fibres detected*	Chrysotile asbestos detected Organic fibres detected*	No asbestos detected Organic fibres detected*

PROJECT: ENVIRHOD00565AA **REPORT NO: 67171**

Method ID	Methodology Summary						
SEP-033	Digestion of Paint Chips - Samples are digested by heating with nitric acid for the analysis of lead by ICPOES.						
AN602	Analysed using in house method AN602 - Qualitative identification of Asbestos Fibres, Synthetic Mineral Fibres and Organic Fibres in bulk samples (including building materials and soils) using Polarised Light Microscopy and Dispersion Staining Techniques. Our NATA Accreditation does not currently cover the identification of Synthetic Mineral Fibres and Organic Fibres, however, according to new NATA requirements, the reporting of these fibres is compulsory if detected.						



PROJECT: ENVIRHOD00565AA **REPORT NO: 67171**

QUALITY CONTROL Lead in Paint	UNITS	LOR	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
						70111 15		
Date Extracted				6/02/20 09	[NT]	[NT]	LCS	6/02/2009%
Date Analysed				6/02/20 09	[NT]	[NT]	LCS	6/02/2009%
Lead in paint	%	0.001	SEP-033	<0.001 0	[NT]	[NT]	LCS	105%
QUALITY CONTROL	UNITS	LOR	METHOD	Blank				
Asbestos ID in materials								
Date Analysed				[NT]				



PROJECT: ENVIRHOD00565AA REPORT NO: 67171

Result Codes

[INS] : Insufficient Sample for this test [RPD] : Relative Percentage Difference [NR] : Not Requested * : Not part of NATA Accreditation

[NT] : Not tested [N/A] : Not Applicable

Report Comments

Sampled by the client

Even after disintegration it can be very difficult, or impossible, to detect the presence of asbestos in some asbestos-containing bulk materials using polarised light microscopy.

This is due to the low grade or small length or diameter of asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials.

Samples were ashed after initial stereo microscope examination, re-examined and trace analysis performed on all samples. No respirable fibres detected using trace analysis technique.

Asbestos analysed by Approved Identifier Ravee Sivasubramaniam.

Samples analysed as received. Solid samples expressed on a dry weight basis.

Date Organics extraction commenced:

NATA Corporate Accreditation No. 2562, Site No 4354

Note: Test results are not corrected for recovery (excluding Dioxins/Furans*)

This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at http://www.sgs.com/terms_and_conditions.htm. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

Quality Control Protocol

Method Blank: An analyte free matrix to which all reagents are added in the same volume or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. A method blank is prepared every 20 samples.

Duplicate: A separate portion of a sample being analysed that is treated the same as the other samples in the batch. One duplicate is processed at least every 10 samples.

Surrogate Spike: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are added to samples before extraction to monitor extraction efficiency and percent recovery in each sample.

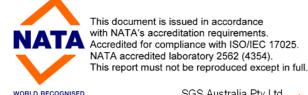
Internal Standard: Added to all samples requiring analysis for organics (where relevant) or metals by ICP after the extraction/digestion process; the compounds/elements serve to give a standard of retention time and/or response, which is invariant from run-to-run with the instruments.

Laboratory Control Sample: A known matrix spiked with compound(s) representative of the target analytes. It is used to document laboratory performance. When the results of the matrix spike analysis indicates a potential problem due to the sample matrix itself, the LCS results are used to verify that the laboratory can perform the analysis in a clean matrix.

Matrix Spike: An aliquot of sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Quality Acceptance Criteria

The QC criteria are subject to internal review and can be provided on request.



ACCREDITATION

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Appendix D Plans

Hazardous Materials Report Salamander Shores Hotel Soldiers Point NSW

